

II. REJECTIONS UNDER 35 U.S.C. § 103(A)

A. Rondeau et al. in view of Saphakkul

Claims 2-8, 32-50, 54-57, and 61-77 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Rondeau et al.* [US 6,001,135] in view of *Saphakkul* [EP 0,312,343]. Applicants respectfully traverse this rejection.

As discussed by the Examiner in the Office Action of September 13, 2001, *Rondeau et al.* teaches "a ready to use composition for the oxidation dyeing of hair comprising in a medium at least one oxidation base in combination with at least one selected cationic direct dye and at least one oxidizing agent." As Applicants admit in the specification (p.3), the cationic direct dyes claimed in their invention are known in the prior art. The invention, however, resides in the combination of these cationic direct dyes with certain quaternary ammonium salts. *Id.* The use of quaternary ammonium salts in combination with cationic direct dyes is not taught by *Rondeau et al.* Thus, *Rondeau et al.* by itself cannot form a basis for rejection of Applicants' claims.

The Examiner has therefore sought to remedy this deficiency by combining *Rondeau et al.* with *Saphakkul* in order to formulate a rejection under Section 103(a). The Examiner described *Saphakkul* as teaching the use of certain quaternary ammonium compounds to condition and to gradually darken hair. According to the Office Action of September 13, 2001: "Therefore, in view of the teaching of secondary reference *Saphakkul*, one having ordinary skill in the art would be motivated to modify the primary reference of *Rondeau et al.* by using quaternary ammonium salts. Such modification would be obvious because one would expect that the use of quaternary

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ammonium salts as taught by secondary reference would be similarly useful and applicable in dyeing compositions." The Applicants respectfully traverse this rejection.

Three basic factual inquiries must be made by the Examiner in order to determine the obviousness or non-obviousness of claims of a patent application under 35 U.S.C. § 103. *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966). In order to carry the initial burden of establishing a *prima facie* case of obviousness that satisfies the *Graham* standard, the Examiner must show that (1) all of Applicants' elements are disclosed by the prior art references, (2) there exists some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings in the manner proposed, and (3) there is a reasonable expectation of success in such a combination or modification. See M.P.E.P. § 2143. For the reasons set forth below, the Examiner has failed to meet the burden of establishing a *prima facie* case of obviousness. Therefore the rejections under 35 U.S.C. § 103(a) are improper and should be withdrawn.

To establish a *prima facie* case of obviousness, the Examiner must show that there exists some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings in the manner proposed.

*Saphakkul* does not provide a suggestion or motivation to use quaternary ammonium salts with *oxidation* dyes. In fact, *Saphakkul* teaches away from this combination by excluding oxidative dyes that are effective upon a single treatment. (p.

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2, lines 14-16). Instead, *Saphakkul's* invention is directed to quaternary ammonium salts in combination with non-oxidative direct dyes that *gradually* darken hair over days or weeks of multiple treatments. (p. 2, lines 21-22, 37-38). Because *Saphakkul* teaches away from the use of quaternary ammonium salts with oxidative dyes, it provides no motivation to combine the quaternary ammonium salts of *Saphakkul* with the oxidative dyes of *Rondeau et al.*

Additionally, *Saphakkul* teaches the use of quaternary ammonium salts as conditioners. (p. 2, lines 40-41). In contradistinction, the quaternary ammonium salts in the Applicants' product are not claimed for use as conditioners. Even if one of ordinary skill would have thought to add a conditioner to the composition of *Rondeau et al.*, *Saphakkul* teaches away from the use of quaternary ammonium salts as conditioners with oxidative dyes. (p. 2, lines 14-16). Therefore, *Saphakkul*, provides no motivation to use quaternary ammonium salts as conditioners with the oxidative dyes of *Rondeau et al.*.

Furthermore, the quaternary ammonium salts in *Saphakkul* are present as disperse lamellar liquid crystals. (p. 2, lines 36-37 and 56-57) In contradistinction, the quaternary ammonium salts in Applicants' product are not present as liquid crystals, but rather are present in aqueous media. (Specification p. 50, lines 9-13). *Saphakkul* does not disclose that quaternary ammonium salts in different phases should behave similarly. Therefore, *Saphakkul* provides no motivation to combine the disperse lamellar liquid crystals of *Saphakkul* with the oxidation dyes of *Rondeau et al.*

In summary, because *Saphakkul* teaches away from using quaternary

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ammonium salts with oxidative dyes for non-conditioning purposes in aqueous media, it provides no motivation to one of ordinary skill in the art to combine the quaternary ammonium salts of *Saphakkul* with the oxidation dyes of *Rondeau et al.*

B. *Rondeau et al. in view of Saphakkul in further view of Aaslyng et al.*

Claims 51-53 and 58-60 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Rondeau et al.* in view of *Saphakkul* in further view of *Aaslyng et al.* [WO 9719998]. According to the examiner, *Aaslyng et al.* teaches a dyeing composition comprising an oxidation base and couplers. *Aaslyng et al.* is further said to teach the use of enzymes (such as laccase, as claimed in claim 58) and certain modifiers (m-diamine, m-aminophenols, or polyphenols as claimed in claims 51-53). *Aaslyng et al.* is said to teach the use of such enzymes in hair coloring processes in place of hydrogen peroxide so as "to solve the problem of hair damage by hydrogen peroxide." In the Examiner's view, it would have been obvious "to incorporate the laccase of *Aaslyng* to the composition of *Rondeau* and *Saphakkol* because such incorporation would provide less damage to the hair..." Applicants respectfully traverse this rejection.

For the reasons presented with respect to the rejection over *Rondeau et al.* in view of *Saphakkul*, there would have been no motivation for combining these two references. *Aaslyng et al.* is directed to the use of a specific type of laccase enzyme as a *replacement* for hydrogen peroxide in a permanent hair dye. The instant application lists laccase enzymes along with peroxides and other materials as categories of oxidizing agents known in the art (p.54), although it does not identify the particular laccase that is the narrow subject of *Aaslyng et al.* nor does it show any preference for

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the use of laccase enzymes over peroxides, as Aaslyng et al. does. To the contrary, both Applicants' invention and the Rondeau et al. reference relied on by the Examiner indicate that the use of hydrogen peroxide as the oxidizing agent is 'particularly preferred' (id; Rondeau et al. at col. 21, line 18). Thus, there would be no motivation for one to substitute the particular laccase enzyme of Aaslyng et al. for the preferred hydrogen peroxide taught by Rondeau et al. Accordingly, there would have been no motivation for further modification of these references in order to produce the invention of the rejected claims. For at least this reason, the Examiner has not established a *prima facie* case of obviousness. In view of these remarks, Applicants request that the rejection be withdrawn.

### CONCLUSION

In view of the remarks presented, Applicants submit that the claims are in condition for allowance and request the timely allowance of the pending claims. Authorization is provided to charge Deposit Account 060916 for any charges or fees that are incurred as a result of this Response.

Respectfully submitted,

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